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Submitting Material for Publication

We encourage our readers to consider submitting material on early North American numismatics to *CNL* for publication. In general, this includes coins, tokens, paper money, and medals that were current before the U. S. Federal Mint began operations in 1793. However, there are certain pieces produced after the 1793 date that have traditionally been considered part of pre-Federal numismatics and they should be included. We cover all aspects of study regarding the manufacture and use of these items. Our very knowledgeable and friendly staff will assist potential authors to finalize submissions by providing advice concerning the text and help with illustrations. Submissions, in either electronic or hardcopy format, should be sent to the editor via the e-mail address given in the editorial or through the ANS at the above postal address.



Welcome! First up in this issue is an update on the DK token. The discovery of this token and its historical significance was reported in our last issue by Dr. Louis Jordan. The update is provided by Paul Berry, the Chief Curator of the Bank of Canada Currency Museum. We are very pleased to welcome Paul and since he is a new author to *CNL*, I asked him to introduce himself. He writes:

I was born in Hamilton, and raised in London, Ontario, Canada, and hold an undergraduate honors degree in history and art history from the University of Western Ontario. In 1984, I joined the Currency Museum, Bank of Canada, which serves as custodian of the National Currency Collection. It is Canada's national treasure of about 100,000 artifacts including a comprehensive collection of Canadian media of exchange and related material as well as a representative collection of foreign media from all historic periods. I became Curator and subsequently Chief Curator of the Currency Museum in 1996 and 2001, respectively, and head a team of dedicated professionals responsible for the management of the National Currency Collection.

I have given talks on numismatic themes at both a local and national level for such organizations as the Canadian Numismatic Association, the Canadian Paper Money Society, the Medallic Arts Society of Canada and various local historical associations. I am also a contributor to the *Canadian Encyclopedia* and the *Charlton Standard Catalogue of Government Paper Money* and have authored numismatic papers for various publications, the most recent being "A History of Decimal Coinage in Canada," included as chapter 5 of the Canadian Numismatic Association's Correspondence Course, Part 2, released in July, 2005.

I am a member of various historic and numismatic societies. I currently serve as the Archivist of the Canadian Paper Money Society of which I am a past president. Also, I am the Deputy Chairman of the Ferguson Foundation, a non-profit group dedicated to furthering a knowledge of numismatics in Canada through grants for research and publication.

Paul reveals in his paper that some exciting new discoveries have been made concerning the DK token. We now know that the token was not cast as reported in our last issue but rather struck with a hand-held die and hammer. Also, to date at least three denominations have been uncovered but we do not know their purchasing value within the community where they were current. As archeology continues at the Ferryland site in Newfoundland, who knows what new and exciting discoveries remain to be unearthed. We can only hope that Paul will keep us informed as more is learned about this lead token.

Our next paper reports the discovery of a new Atlee halfpenny variety, Vlack 5-74A, and how the study of two similar dies in this series led to its discovery. This paper comes to us from another new author, Jack Howes. As you read his paper, I think you will soon realize that Jack has excellent digital image processing skills. Jack tells me that he has always been a collector but not an active one until about four years ago. At this time he became seriously interested in the research side of collecting and since colonial numismatics offered many research challenges he was drawn to this area of numismatics.

Initially, when Jack realized there was a need for new photo plates of the various dies of counterfeit British halfpence stuck in America, he created a new set in color and made them available to collectors. Bob Vlack had created the first set of plates on this coinage back in 1974 and they were long out of print and hard to obtain by new collectors. Currently, Jack has several projects in progress, but his largest project by far is a new book on New Jersey state coppers, in collaboration with Roger Siboni.

Jack's study of Vlack obverse dies 5 and 8 not only shows that these are, in fact, the same die but how today's new digital imaging technology can be used on your home computer to facilitate such studies. Jack's paper is an interesting read as he methodically works his way to a conclusion with the surprise of a new variety discovery thrown in at the end.

In 1988 the American Numismatic Society, in their *Museum Notes 33*, published a paper by Eric Newman titled "Were Counterfeit British Style Halfpence Dated 1785 Made Specifically for American Use?" Within this paper, Eric made the first attempt at categorizing the dies that were used to strike the 1781 and 1785 imitation British halfpence series. As one might expect, nearly twenty years later, new dies and die marriages that were unknown to Eric have come to light for each of these coinages. The next two papers provide update information on these coinages along with new die marriage and attribution plates.

The 1781 paper is authored by three enthusiasts of this coinage series. We are pleased that Eric Newman, a highly respected researcher and author in the field of colonial numismatics. has contributed to this new work which is a direct result of his efforts in 1988. Roger Moore who is the principal author of this update is no stranger to the early American community. We all know him for his enthusiastic research and well-written papers plus his very useful plates. David Palmer is also well known in the numismatic community but this is the first time he has been published in CNL. He is a longtime collector who is very involved with promoting numismatics. For a number of years, he served as the NY/NJ Regional Vice-President of the Colonial Coin Collectors Club of which he is now Vice-President. Also, he moderates three online eGroups all relating to early American numismatics. His collecting interests lie with many of the non-Federal coinages that circulated in early America and he has a special interest in counterstamped American coins, primarily colonial.

The 1785 paper is authored by Byron Weston and Roger Moore. Byron is the primary author

of this paper with Roger providing the attribution information and plates. Over the past several years, Byron has concentrated his studies on counterfeit British and Irish halfpence and farthings. He is known for developing the Link Fingerprint and Family concepts in the pursuit of these studies. The results of his studies have been published several times, both in *CNL* and the *C4 Newletter*. Byron's most ambitious work to date was published as CNL-111 (August 1999) where his paper titled "Evasion Hybrids: The Missing Link" took up the entire issue and is still one of the best references on the subject of counterfeit halfpence and farthings available today.

Finally, once again, I would like to remind you that a comprehensive *CNL* index is online at the web page address given on the inside of our front cover. This index is updated after each new issue and covers all 46 years of publication. All back issues of *CNL* are available in PDF softcopy format and there are also a limited number of back issues available in hardcopy. If you are a serious researcher in early American numismatics, *CNL* is one of the best resources available to you. Requests for back issues should be made to Juliette Pelletier at the ANS. Her contact information is also given on the inside of our front cover.

Gary Trudgen gtrudgen@aol.com

THE DK TOKEN - REVISITED

Paul S. Berry; Ottawa, ON

(TN-196)

In the previous issue of this journal, Louis Jordan introduced readers to the newly discovered DK token and described its context within the bustling, commercial activity of the seventeenth century Newfoundland fishery. In the postscript to his paper, Jordan made reference to two other such pieces that had been unearthed at Ferryland, Newfoundland, during the 2005 excavation conducted by Memorial University. 1 Copy deadlines prevented him from doing much more than giving their measurements. The purpose of this short article, consequently, is to update readers about these two pieces as well as to share an unexpected, new find from the 2006 excavation that raises questions about the value of these tokens in circulation and sheds further light upon their production.

The discovery piece (#476224, Fig. 1) was located in 2004 close to a structure identified as the mansion occupied by David Kirke, governor of Newfoundland from 1638 to 1651. The token is generally round in shape varying between 18.51 mm and 17.43 mm in diameter along the horizontal and vertical axes respectively.² The flan is of an uneven thickness varying between 1.40 mm and 3.14 mm. The piece appears to be made of lead or of some leaden alloy and is uniface in design with a ligature DK surrounded by an incomplete ring of denticles on the obverse. The token weighs 7.4 gr. and is in generally good condition but for some damage to the rim post preparation at 12:00 and at 3:00.

The discovery of a second example of this token, (#508981, Fig. 2) in the spring of 2005 demonstrated that the DK token was not some isolated phenomenon but possibly part of a more extensive issue. This new piece is similar in size, weight and form to the original find. The flan is less oblong than before, measuring 18.4 x 19.2mm in diameter and it is of a more even thickness, ranging between 3.00 and 3.35mm. At 6.15 grams in weight it is slightly lighter than the discovery piece. It is also in a poorer state of preservation with some surface deposits and loss of relief. This possibly is due to a combination of more extensive handling and some deteriorating elements in the soil where the token has rested for over 350 years.

Later in 2005 a third token (# 512084, Fig. 3) was unearthed. It is considerably smaller than the two previous pieces suggesting that Kirke issued tokens in more than one denomination. Measuring 14.51mm along its horizontal axis and 13.42mm along the vertical axis and weighing 0.97 grams, it is approximately half the size of the other DK tokens and about one-sixth the weight. The flan is also very thin ranging from 0.99 to 1.24 mm. The condition of this piece is comparable to the second token. The surface is again distressed and the flan shows signs of having been impacted in the center presumably after issue as there is a small concavity on the obverse in the area encircled by the "D".

1 Jordan, 2006, pp. 3051-53

² The measurements of the first three specimens presented in this paper differ slightly from those given by Lou Jordan. The author retook metrological data of all four specimens while writing this paper. The uneven nature of the flans (both along their edge and surface) and the curvature of the edge all might contribute to give different readings across the same points on a particular specimen. In addition, the calibration status of the instrument used to make the measurement could also contribute to these differences

As Jordan noted, with the existence of this new piece, one might reasonably presume that the now two different size pieces represented farthing- and halfpenny-valued tokens such as were issued in England during the mid-seventeenth century, or perhaps even some other range of relative values. Again, the piece is uniface and of a similar design to figures 1 and 2.

In July of this year (2006) archaeologists at Ferryland unearthed a startling new find: a gargantuan, fourth token (#529873, Fig. 4) bearing not one but three of the same DK ligatures each within a beaded circle as appeared on earlier discoveries. Like the other pieces it is uniface. It measures a whopping 36.60mm and 35.09 mm along its horizontal and vertical axes respectively. It ranges from 1.22 to 3.04mm thick and it weighs 20.55 grams. It is generally in excellent condition but for an uneven flan. The portion of the flan from about 7:00 to 10:30 is bent upward and that from about 10:30 to 12:00 is bent slightly downward.

This startling new find is considerably larger than any other Kirke token discovered to date. Its weight, at approximately three times that of the mid-sized tokens, coupled especially with the triple impressions of the DK ligature on the obverse would suggest that this large piece was valued at three times that of the mid-sized pieces (Figures 1 and 2). If, in fact, the mid-sized pieces represent halfpennies, then this new find could have been valued at three halfpennies. Elizabeth I of England had introduced a three-halfpenny piece in 1561 to help meet the public need for small change.³ Although that coin was discontinued in 1583, Kirke and his contemporaries likely would have been familiar with it given the prevalence of Elizabethan coins in circulation both in England and in colonial Newfoundland well into the late seventeenth century.⁴ Given the lack of corroborating information from contemporary documents, any attempt to ascribe a value to these pieces, however, is pure conjecture or at best a considered guess based upon comparisons with English counterparts.

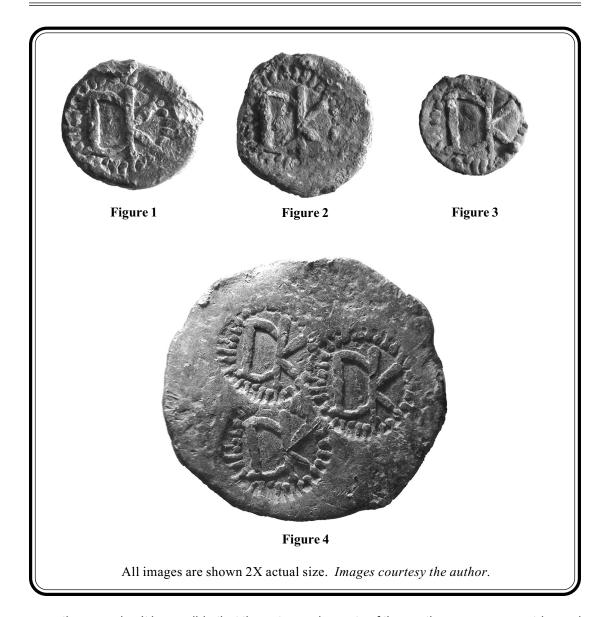
Regardless of its intended value, this new multiple is a significant piece of evidence in any discussion about how DK tokens were made. Basing his conclusions upon the crudity and uneven nature of the original find, Jordan postulated that the Kirke token was cast from a bivalve mold and that the off center design was the result of misaligned impressions in the mold. In drawing his conclusions, however, Jordan did not have direct access to the Kirke token but had to rely upon a photograph of one piece in isolation. In fact, upon physical examination, all of the Kirke tokens appear to have been struck, not cast and any off centered or lopsided design was simply the result of a poor minting technique. Most telling, of course, is the triple DK ligature that appears on the multiple. These three impressions overlap each other as would result from one having repeatedly struck the flan with the same die. It appears that the die was struck first at 7:00 then at 11:00 and finally at 3:00. The last strike exhibits an essentially complete design cutting through a portion of the two other impressions. It seems likely that these images were struck into the flan at some time after it was bent, as the two impressions at 7:00 and at 11:00 are deepest toward their lower left side, points along the axis where the flan bends upward.

Further, none of the pieces uncovered to date exhibits any trace of a sprue, the excess metal that often spreads out between the two halves of a mold. Characteristically this is visible along the edge of cast pieces. Likewise there is no tang, that remnant of the channel along which molten metal flowed to fill one mold and then another when casting the "trees" in which groups of tokens were

³ This coin was from 16 to17mm in diameter and made of fine silver like other denominations in Elizabeth's new issue.

⁴ Berry, 2002, pp. 17-18. In a recent e-mail Louis Jordan informed me that an Elizabethan three-halfpenny piece was uncovered at James Fort, Jamestown in 1996. See Kelso, 1997, p. 22.

⁵ Jordan, 2006, pp.3006-8.



sometimes made. It is possible that these trace elements of the casting process were trimmed off before the tokens were put into circulation, but a close examination of the DK pieces did not reveal any telltale signs such as file marks or series of scratches. While many contemporary leaden tokens from England were cast in molds made from natural materials including, but not limited to, chalk, limestone and slate, there is precedent for hand struck examples. In his new work on leaden tokens, Edward Fletcher cites contemporary sources that refer to struck pieces. Given Kirke's status in the province it seems likely that he would have had recourse to this less "common" method of manufacture.

6 Fletcher, 2005, p. 90, cites a reference to "graving the stamps and striking the tokens" that he indicates appeared in an article in the *Numismatic Circular* in 1977. In fact, the article, written by N. Du Quesne Bird, appears on pp. 83-84 of the April 1992 edition of the *Numismatic Circular*. Du Quesne Bird quotes churchwarden records for St. Thomas's church in Salisbury dated from 1569 to 16 83, which refer to the engraving of dies for the striking of lead communion tokens.

Were all of the DK tokens made from the same die? To answer this question images of each token, in the same size and orientation, first were prepared using Adobe Photoshop. Then, transparencies were prepared of each token, printed at about ten times the actual size of the tokens so as to allow one to overlap the images on a light table and compare the details. Using this method, the details from each piece lined up so closely that there is no doubt but that each token was prepared from the same die. The die in question measured about 13mm in diameter along its horizontal axis and 14 mm along the vertical axis. To judge from the impressions on the four tokens, there was no rim on the die. The beaded border itself forms the rim and seems to have been cut along the edge of the die to a depth roughly equal to the ligature DK. Presumably, the die was some sort of metal punch no more than a few inches in length and similar to contemporary tools used to punch leather.

Our understanding of DK tokens has undergone considerable change in the two years since the discovery piece was unearthed. As with many archaeological finds, conclusions drawn in the first light of discovery are often subject to revision as a fuller picture emerges with further excavations. In this instance, what started as an isolated example became one in a larger issue, then one of two denominations in a series and now one of multiple values each prepared using the same process and tools. Who knows how our view of the DK tokens will change yet again as further discoveries are made in that little village on Newfoundland's old English shore.⁷

ACKNOWLEDGMENTS

I would like to thank Dr. James Tuck of Memorial University in St. John's Newfoundland and the Avalon Foundation at Ferryland for allowing me to examine the above tokens first hand and to take and publish the accompanying photographs of the pieces. I also thank Louis Jordan and Gary Trudgen for inviting me to prepare this follow-up article and for reviewing the text.

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Jordan, Louis E., "The DK Token and Small Change in the Early Seventeenth Century Settlement at Ferryland, Newfoundland," *The Colonial Newsletter*, volume 48, no. 2, (August 2006) serial no. 131, pp. 3005-59.

Kelso, William and Beverly Straub, 1996 Interim Report of the APVA Excavations at Jamestown, Virginia, The Association for the Preservation of Virginia Antiquities, Richmond, 1997.

⁷ The DK tokens in fact represent only one identifiable group out of various leaden tokens that have been found to date at Ferryland. The role of these monetary substitutes both at Ferryland and at other sites in seventeenth and early eighteenth century colonial North America is the focus of a study currently being undertaken by the author.

ATLEE HALFPENNY VLACK 5-74A A New Discovery and its Relevance to a Detailed Analysis of Vlack Obverse Dies 5 and 8

by Jack L. Howes; Grosse Pointe Woods, MI

(TN-197)

Numismatists have long recognized that certain counterfeit British halfpence are tied into the state coinages and therefore made in America. Robert Vlack was the first to assign die labels and publish plates of these halfpence. Later research has shown that the majority of these specimens can be placed into four distinct groups.¹ This technical note focuses on two of the varieties found in Group 1 which are thought to have been struck in New York City at Harrison's Brewery along the Hudson River in 1786. Importantly, a new variety in Group 1, Vlack 5-74A, is also reported.

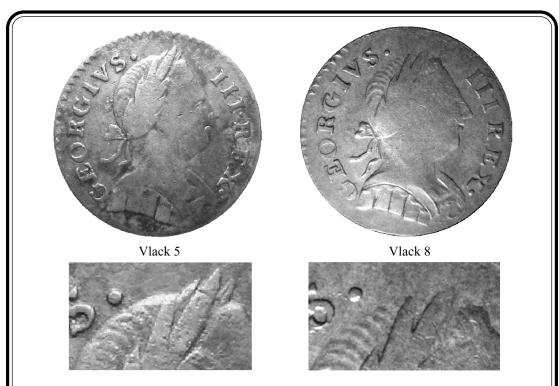


Figure 1: Comparison of Vlack obverses 5 and 8. Below each obverse image is an enlargement of that variety showing the position of the letter "S" and the stop in the legend with respect to the back of George's head. Also shown is the detail at the top of the wreath.

A detailed comparison of Vlack obverse 5 and Vlack obverse 8 indicates a close relationship between these two dies. Figure 1 is a side-by-side comparison of these two supposedly different obverse dies. They do look different, but exactly how do they differ?

¹Trudgen, Gary, "James Atlee's Imitation British Halfpence," The Colonial Newsletter, March 1987, pp. 965-79.

The two primary differences are the very top of the wreaths, and the stop between III and REX of the legend. On obverse 5 there is a stop while on obverse 8 this stop is absent. From the enlargements in Figure 1 of the wreath area it is clear that obverse 5 has four leaves at the peak, three of which extend above the head with a larger one flanked by two smaller ones. The fourth leaf seems to be truncated. On obverse 8 there appears to be two top leaves separated by a wide V-shaped space and only the right leaf protrudes above the head.

A further minor difference is that S• of the legend appears to be slightly closer to the head on obverse 5. While it is clear there is some difference in the wreaths and that one die has an extra stop in the legend, it is not so clear that the spacing of the S• to the head is different. This is subtle, possibly subjective, and could be due to strike. All of these differences are important and need to be explored more quantitatively.

One way to do this is by image overlays. Figure 2 is an overlay study of obverse 8 overlaid on obverse 5. Figure 2a shows the original images. In Figure 2b contrast enhancements are applied. When overlaying images, if the overlaid images do not line up precisely, ghost images appear as is clearly demonstrated in Figure 2c. In Figure 2d the two obverse images are brought into alignment. Places where the two images do not align perfectly will have ghosts or if quite close, but not exact, dark borders appear, resembling shadows. This is a subtle effect that requires close study to see. The areas that do not quite align are pointed out by arrows. As can be seen in the aligned images these dies match almost perfectly and that the differences are very small.

Visual observation of these two dies indicates that the seemingly different wreaths aligned perfectly! The primary differences appear to be that the wreath on obverse 8 is missing the top ends of the three leaves that extended above the head on obverse 5 and possibly that the far left leaf has been strengthened in some way on obverse 8. Visual observation also shows that the legend stop between III and REX is missing from the legend on obverse 8 but present on obverse 5

There are an additional few slight legend differences visible in this overlay comparison. They are pointed out by arrows on Figure 2d and Figure 3. Figure 3 is an enlargement of Figure 2d. There are slight differences in the area of the S• and EX• of the legend. S• appears to be a bit closer to the back of George's head on obverse 5. There is no visible difference in the relative position of S and •, however. Also no difference in the relative position of EX• can be seen. The largest area that is not aligned are the denticals from 9-11 o'clock above ORGIVS of the legend.

The differences in the wreaths and the missing stop can only be explained by differences in the dies at the time the coins were struck. However, could the subtle differences in the denticles and legend be an artifact of the overlay process of the two images or are these differences due to the dies?

The two images were taken at different times with different equipment. The underlying image of obverse 5 was taken by the author of a coin from a Chicago area collection using a low cost digital camera. The upper image of obverse 8 is from the C4 photo library and there is no information on the equipment or setup used for this image. The images both appear to have been taken with the camera lens parallel to the coin but they each could be off slightly. Several different alignments were explored and the results were similar. It is possible that these differences in the legend are an artifact of the images used in the overlay process. Therefore, it would have been more conclusive to have had high resolution digital images of these two obverses taken at the same time using the same setup and equipment.

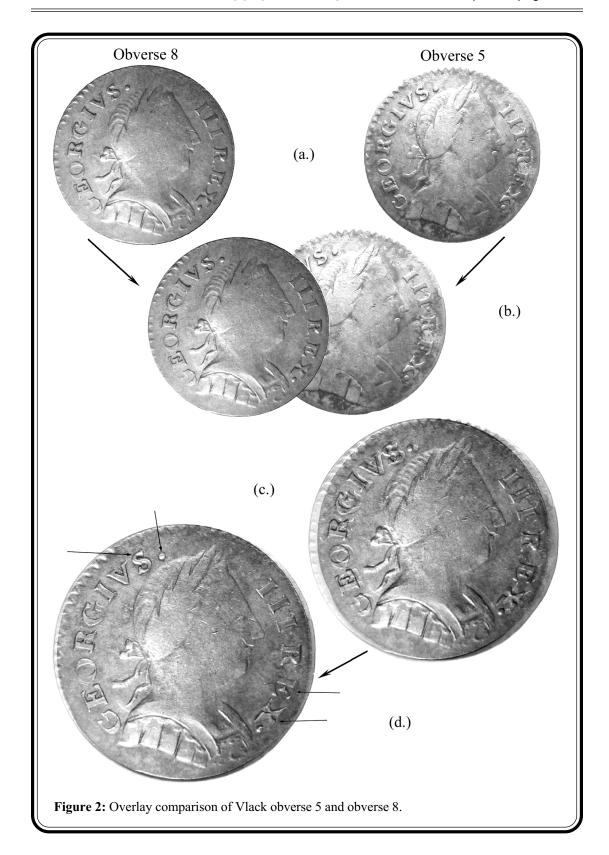




Figure 3: Enlargement of the overlay image of Figure 2d. The opacity of obverse 8 is set at approximately 60% and this image is placed over the image of obverse 5 which is at 100% opacity. The arrows point to slight differences in the two images. [Shown at 4X actual size.]

Another way to analyze the obverse images is to place the images side-by-side and then overlay a grid on them. The overlay images are used with the same adjustments and orientations and are shown in Figure 4 with the grid. The two images are positioned so that the same reference point on each coin has the same relationship relative to the grid lines.

When various points of interest are examined closely, such as the nose and mouth, they appear positioned identically on both coins. Some slight differences can be seen however, such as the chin, which aren't apparent on the overlay. The stop on obverse 5 is clearly closer to the back of George's head. The REX• stop appears to have moved slightly in the same direction as the other stop. What about the denticulation? This is where the widest differences were observed on the overlay. Again, there are definite differences in the denticles in the same area as observed with the overlay. Both the grid and overlay comparisons show similar, slight differences in the legends and denticles. However, it is still unknown if these differences are due to variations in the images because of the two different photographic setups. If, indeed, the differences are actually in the coins, they could be explained by planchet spreading due to different striking pressures and different hardnesses of the copper in the planchets.



Figure 4: Side-by-side comparison of obverse 5 and obverse 8 using an image processing software grid. The serif of the first G in the legend was chosen as the reference point.

Vlack#	5-72A	8-74A
Count	7	17
Avg	113.7	112.1
Max	119.6	119.7
Min	106.2	93.0
Median	114.4	114.1
Std	5.6	6.9

Table 1: Planchet weight data in grains.

As a final step, more images of high grade examples of these two varieties were compared along with planchet weight data as shown in Table 1. Two additional differences were observed. The armor and breastplate are always complete on obverse 5 but weak and almost never complete on obverse 8. Also, the upper part of the first G in the legend is weak on all obverse 8s and strong on obverse 5s. In addition, the metrological data in Table 1 indicates that the two varieties are almost identical in average and median weights.

What are the possible explanations for what has been observed? There are three that will be examined. They are:

(1.) Obverse 5 and obverse 8 are independently engraved dies using a central device punch and individual punches for the legends.

- (2.) Obverse 5 and obverse 8 were created using a hub/punch that included the legends but without the stops.
- (3.) Obverse 5 and obverse 8 are the same die modified in some way to produce the effects seen.



Figure 5: Obverse 5 (top image) legend compared to obverse 6 (bottom image). Note the spacing differences, especially between ORGI.

Clearly these two dies were not independently engraved because the central devices and spacing of the legends are too similar. There is normally more variation in the placement of the legend letters than seen between obverses 5 and 8 when each letter is individually hand punched into the die. For example, examine Figure 5 where the left side of the legend of obverse 5 is compared to obverse 6. The same letter punches were used for both dies - note the unusual S. The other letters appear identical but the spacing is different. The difference in spacing between obverses 5 and 6 is more like what is expected for different dies which were independently prepared using the same letter punches. So, rule out independently engraved dies.

Was a complex master hub or master punch with the central device and legends, except for the stops, used to create obverse 5 and obverse 8? Gaspar and Dyer have demonstrated that this technology had been developed to create master hubs by the time these dies were engraved in the late 1780s.² But, it is not likely that these coiners had this technology or probably even knew about it. Abuel Buell is the only known American colonial engraver/minter who is believed to have

² Dyer, G. P. and Gaspar, P. P., "Virginia Numismatic Discovery," *ANSMN* 27 (1982), pp. 231-37; Peter P. Gaspar, "Coining and Die-making Techniques in the 17th Century," *Metallurgy in Numismatics* Volume 3 (1993), Royal Numismatic Society, pp. 130-40; G. P. Dyer, "Punches and Dies in the 18th Century," *Metallurgy in Numismatics* Volume 3 (1993), Royal Numismatic Society, pp. 160-66.

experimented with this technology.³ And he abandoned it for less complex and probably more cost effective use of only a central device punch.

Counterfeiters were very unlikely to have used this level of sophisticated (for the time) technology. Even if they were not worried about being discovered, counterfeiting was a low budget operation because profit was made by minting lightweight coins to be placed in circulation. Finally, how would what is seen on the coins have been created with a complex master hub? The change in the wreath probably could have occurred if the hub was damaged and then reworked. Also, the complex master hub would have had to have been without legend stops which were added later by hand on each die. However, this does not seem likely. Complex master hubs can be ruled out for the preceding reasons, the main one being that the mint would not have been at all likely to have been using technology that even the Tower Mint in London did not use.

The final possibility is that these are the same dies but modified, perhaps to fix some damage, creating Vlack obverse 8 from Vlack obverse 5. This is probably the simplest explanation for the observed differences between these two varieties. Adding all of the observations together, this is the most logical answer. If obverse 5 had some surface damage, how would it be repaired? One fairly standard way would be to lap the die. This is similar to turning a brake rotor or sharpening a knife. The result is that a layer of metal is removed and the lowest relief is eliminated! The missing stop on obverse 8 is always very weak on obverse 5 because it was not punched very deep into the die. The top of the wreath is arguably always weak and thus low relief. Other artifacts observed also answer to this possibility: the weakening of the armor and the weakness of the first G in the legend due to the punch not being held perpendicular to the surface of the die.

The position change of S• of the legend with respect to the back of George's head also fits the die lapping theory. The die face is three dimensional and if a layer is removed the relationship between design elements will change depending on the exact 3-D geometry. The design elements are incused into the die and since the head of George is not an abrupt (perpendicular) edge but rather a sloping edge, removing a layer of the die face will change the relationship of George's head to the legend. The removal of a layer of the die face also shows how a stop can disappear, especially if the stop was not initially punched very deep into the die. Slight changes in the legends will also occur because the sides of the letter punches are normally tapered plus, in the case of the G punch, it was not punched perpendicularly into the die.

Thus, the logical conclusion is that obverse 8 was derived directly from obverse 5 by lapping of the die face. Therefore, it is the same die but modified. This analysis also suggests that the 5-72A linked group of varieties was struck before the 8-74A linked group. Assuming this is in fact what happened, there are new questions to answer. Why was obverse 5 modified (lapped) when the reverses were changed in the coinage press? What are the possibilities?

The most obvious one would be that the reverse die failed and while swapping in another reverse die the obverse was reworked. This seems plausible but for the fact that reverse 72A was used in later dies states with obverse 6. (See Figure 6.) From what the author has seen, all 6-72A varieties have later reverse dies states than the 5-72A varieties. So, this is not what happened.

3 Spilman, J. C., "Abel Buell – Our American Genius – Part II – The Diesinker of 1786," *The Colonial Newsletter*, Volume 13, No. 1, 1974, pp 423-34.

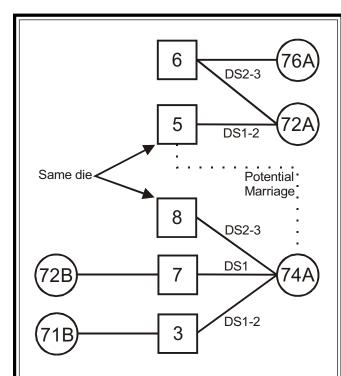


Figure 6: Die groups for reverse dies 72A and 74A. Die state definitions for the various marriages of these dies are given below. Die marriages that are found with more than one die state are shown as DS1-2 (DS1 or DS2) and DS2-3 (DS2 or DS3).

Reverse 72A

DS1 – Perfect state of the die.

DS2 – Die break (really a die failure) obliterated the branch hand with a lightning like break extending below the hand area, a secondary break seems to form simultaneously about the middle of the branch arm extending upward also like a lightning strike.

DS3 – Original breaks enlarge and merge. New break forms from the rim through the top of the I to the T in the legend BRITAN.

Reverse 74A

DS1 – Perfect state of the die.

DS2 – Die bulge near the middle and on top of the branch arm.

DS3 – In addition to the die bulge found in DS2, a thin die break through the tops of the legend letters BR and in some examples extending to I of the legend BRITAN.

A remote possibility is that the hammer die came loose and was driven into the anvil die resulting in damage to both dies. The hammer die (obverse in this case) has minor damage and is lapped to fix the damage. The reverse die is removed and a new reverse die is placed into the press. Eventually this damaged reverse, 72A, is reused with obverse 6, explaining the late die state on the reverse of variety 6-72A. This scenario seems somewhat plausible, but there are objections. Normally the hammer die is the reverse die and the damage on 72A looks more like progressive die failure from fatigue rather than damage from a cocked die clash but it does have some similarity to what that might look like.4

Another possibility is that the mint ceased operation for a period of time (or possibly they stopped minting counterfeit British halfpence and switched to another coinage series). When the mint started counterfeit British halfpence again they married obverse 6 with reverse 72A instead of obverse 5. When the mint wanted to use obverse 5 again something caused them to rework it and it was then combined with reverse 74A. This seems very plausible and is the most likely cause of what we see. End of story? Not quite! While this explanation seems plausible, the facts are not really strong enough to actually prove it.

This turns out to be an example of fitting a solution to known data and then finding new data. In an early draft of this article it was conjectured that possibly there were die combinations that had not been discovered; namely 5-74A or less likely

⁴ Ish, Buell, "A Third Ear Merits Study," *C4 Newsletter*, Fall 2004, pp. 5-24. This study analyses the "cocked die clash" of New Jersey copper variety Maris 77-d.



Figure 7: The Vlack 5-74A discovery coin: weight 108.6 grains, diameter 27.9 millimeters. Die state of reverse 74A is DS2-3. (See Figure 6 for an explanation of die states.) [Shown 2.5X actual size.]

but possibly 8-72A. Old auction catalogs were examined but no likely candidates were found. Many lots, especially low grade ones, were not plated and ones that were did not always have good enough images to make a decision. At a later point in time the author saw a lot on eBay that looked tantalizing and bought it. When the coin eventually arrived (that's another story), surprise, it was a 5-74A! (See Figure 7.)

So, what previously seemed like a perfectly plausible explanation will have to be discarded in light of new incontrovertible data. Discovery of this new die combination does not produce a cleaner explanation of what occurred at the mint. It argues for events that are less likely but hard to dispute. This being that obverse 5 was used with both reverse 72A and reverse 74A before it underwent lapping. It is likely, however, that very few 5-74A varieties were struck – one is now known but it can be expected that a few more will turn up over time.

Conclusion

In summary, obverse 5 was first combined with reverse 72A. Subsequently, it was briefly combined with reverse 74A. Something then happened to obverse 5 which caused the coiners to remove it from the coinage press and lap the die face. Enough of the die face was removed to give it the look of a different die variety resulting in a new label, Vlack obverse 8. The lapped die was then placed back on the coinage press with reverse 74A. Based on die state evidence, this sequence of events happened after reverse 74A had first been paired with obverse 3 and obverse 7.

Photo Credits

Figures 1-4: Obverse 5, photo by the author from a Chicago area collection; Obverse 8, C4 Photofiles, M248, from the Albany collection.

Figure 5: Obverse 5, C4 Photofiles, M309; Obverse 6, C4 Photofiles, M303.

Figure 7: 5-74A, photo by the author from his collection.

1781 IMITATION BRITISH HALFPENCE UPDATE

by Roger A. Moore, M.D.; Moorestown, NJ David L. Palmer; Deer Park, NY Eric P. Newman; St. Louis, MO

INTRODUCTION

Little attention was paid to the 1781-dated imitation British halfpence until 1988 when the known die varieties of both the 1781 and 1785-dated coinages were first explored. Though 1781 imitation British halfpence were known to occur more frequently than the 1785-dated coins, both were considered relatively non-collectable due to their perceived rarity. Since then a number of 1781-dated coins have come onto the marketplace with continued discoveries being brought to light. The frequency of the appearance of more 1781-dated coins now allows them to be collected by variety. In addition, two new die varieties have been discovered since Newman's original paper. The purpose of this study is to update the original listing of 1781 die varieties of imitation British halfpence and provide attribution guides for their identification.

NEW DISCOVERIES

Newman 45-81C

The discovery coin for variety 45-81C was cataloged by Tom Rinaldo in the 1998 sale of Mike K. Ringo's collection of 1781 and 1785 imitation British halfpence.² A new obverse die is married with a previously known reverse – Newman 81C. The new obverse has not been officially described, although it was mentioned in a footnote of a 2004 paper by Byron K. Weston and Gary A. Trudgen.³ Since the next available unused number in the sequence of obverse dies is 45, the authors agree that obverse 45 is the appropriate designation.

One feature distinguishing this obverse as a new die variety is the close spacing of the legend letters R, E, and X, which is similar to the spacing seen on obverses 40 and 46. The separation of the bottom of letter S in GEORGIVS from the back of George III's head is similar to obverses 40, 41, 42, 43 and 46. The ribbons behind George III's head in relationship to the letters GE in GEORGIVS are similar to the ribbons on obverse 43. The first ordinal in III is tilted more to the left, compared to the other known obverses. However, the most striking feature that distinguishes obverse 45 is the die break near the top posterior portion of George III's head.

Since the initial discovery of this new variety, two other examples have become known to the authors. All three coins show different extensions of the obverse die break. (See Figure 1.) From the rarity of this variety and the occurrence of the die break in each of the three known specimens, the authors presume that the obverse die broke early, perhaps as early as the first strike. Rapid progression of the failure of the obverse 45 die is what probably led to its early retirement. This

^{1.} Newman, Eric P., "Were Counterfeit British Style Halfpence Dated 1785 Made Specifically for American Use?" *ANSMN 33*, The American Numismatic Society, 1988, pp. 205-23 and plates.

^{2.} McCrawley & Grellman Auction Catalog, *The Fourth Annual C-4 Convention Sale of U.S. Colonial Coins*, cataloged by Tom Rinaldo and Mary Sauvain, November 21, 1998, lots 414-20.

^{3.} Weston, Byron K., Trudgen, Gary A., "Central Device Punch Trial Piece of the 1781-dated Series of Counterfeit Halfpence," *The Colonial Newsletter*, April 2004, sequential pages 2639-42.



Figure 1: Obverse 45 Die Break Succession. The three known specimens of obverse 45 are shown above. The image on the left is the earliest known die state of the specimens available for study. Note the small die break over the top of George III's head that touches the bottom of the V and S in GEORGIVS. The center image shows progression of the die break with greater involvement of the legend and a slight thickening of the break. The image on the right shows further die break progression with significant involvement of the legend. The obverse 45 die probably deteriorated early in the minting process. *Images courtesy of Neil E. Rothschild (left), Roger A. Moore (center), and Gordon J. Nichols (right).*

would explain why the reverse 81C was paired with another obverse die – Newman 42. This is the only known circumstance in the 1781 coinage in which a die is paired with another die more than once. There is a notable exception, however, where a fantasy coin was struck from two 1781 obverse dies. This unique specimen is discussed below under the section on the new 46-81F variety.

Newman 46-81F

Assigning credit for the discovery coin of variety 46-81F is somewhat convoluted. Tom Rinaldo's 1998 cataloging of Mike K. Ringo's collection of 1781 and 1785 imitation halfpence indicated under lot 420 a "Double Obverse British Imitation Halfpenny – N.43 & N.45." (See Figure 2.) However, in the lot description, Rinaldo points out that what is called a N.45 is neither a Newman obverse 45 nor an obverse 42. In actuality the "45" side was the new obverse die which the present authors have designated obverse 46. Tom Rinaldo should receive credit for indicating that this was a new obverse die variety in 1998. In regard to the reverse, in an exchange of emails on the counterfeit halfpence eSIG in November, 2004, Clement V. Schettino posted the photograph of a 1781 coin which he indicated might be a new variety.⁴ Opinion from the group was mixed, since the coin was porous and its characteristics were not easily discernable. However, the appearance of another coin on eBay in March 2005 provided positive proof of the existence of a new variety having both a new obverse and a new reverse. Therefore, Clement V. Schettino is due the credit for discovering the new reverse. Based on the nomenclature previously used to describe the 1781 coinage, the next unused obverse was 46 and the next unused reverse was 81F. Interestingly within a week of this new variety being substantiated, another example was purchased on eBay from an English seller.6

^{4.} From e-mail communications in the counterfeit halfpence eSIG group; http://groups.yahoo.com/group/ColNewsLetFndn/messages, message number 17100 from Mike K. Ringo on November 16, 2004 and message number 17116 from Clement V. Schettino on November 17, 2004.

^{5.} eBay Item number 3966542836, "1781 Contemporary Ctf. Halfpence Newman 40-81A?," sold by John Lorenzo on March 29, 2005 to Roger A. Moore.

^{6.} eBay Item sold by a British dealer in April 2005 to David L. Palmer.

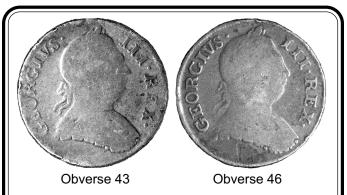


Figure 2: 1781 Double Obverse Coin. Double 1781 obverse coin with one obverse side being Newman 43 and the other obverse side the discovery Newman 46 die. *Image courtesy Mike K. Ringo*.

OBVERSE 46: This obverse is distinguished from the other varieties by the close approximation of the ribbons on the back of George III's head to the letters GE in GEORGIVS of the legend. No other variety shows such a close placement of the ribbon ends to the lettering, though obverse 41 approaches a similar relationship. The location of S in GEORGIVS is close to the head as seen in obverses 40, 41, 42, and 43. Each letter in REX is placed in close proximity to one another, as seen in obverses 40 and 45.

REVERSE 81F: This reverse is distinguished from the other varieties by the top leaf of the sprig being located under the space between the A and the N in BRITAN, as also seen on reverses 81A and 81C. The top of the number 7 in the date is slanted downward to the left and the number 8 has a defined space between its top and the bottom of the exergue line. An extension of Britannia's staff intersects at the top of the first number 1 in the date which is also seen on 81C. The stop after NIA in the legend is level with the middle of the letter A which is also seen on reverses 81B, 81D and 81E. Britannia's arm points to the middle of the upright in the letter T of the legend's BRITAN.

ATTRIBUTION GUIDES



Figure 3: 1781 Central Device Punch Trial Piece. Copper planchet that has had both the obverse and the reverse central devices impressed into its surface. Note the lack of legends, date, and detail on the shield, all of which were added to each die after the central devices had been placed using a hub produced from the master matrix. This piece is believed to have been made by using the master matrix. *Image courtesy Byron K. Weston*.

The ability to distinguish one 1781 variety from another takes time and study. Many of the differences between these varieties are very subtle and can be difficult to identify. One might wonder why the seven obverses and six reverses making up the total of seven varieties are so similar in both quality of design and detail. At least part of this question is answered in a technical paper detailing what was considered to be a 1781 central device punch trial piece. (See Figure 3.) In order to make the piece, the tools would have had to contain the reverse and intaglio images of the central devices. It is theorized that the tools used to make the piece

could have been either cut down dies (doubtful), or punches used to make punches, otherwise know as master matrix central device punches. The fascinating aspect of having this piece

available for study is that it shows why all the 1781 coins look very much alike. The primary portion of the coin which was the head of George III on the obverse and the device of Britannia on the reverse are the same based upon the use of master punches. The only areas of variation occur in the placement of the legends and date. In addition the shield lines were added later since these are missing on the piece produced from the master matrix reverse punch. However, since the shield lines are on the most exposed portions of the coins, they are typically worn off early during circulation and usually not available for evaluation.

The sole significant study performed in 1988 concerning the 1781 imitation British halfpence provided the readers a written description of each variety, but most attributors relied heavily on the photographic plates. The present authors also emphasize the value of photographic plates in making positive variety identifications. In addition attribution can be aided by the use of a simple guide. Certain characteristics of each coin differ from variety to variety and can be used to help narrow down the attribution to a specific die. Many different guides could be developed based on the placement of a greater emphasis of one characteristic over another. The authors have provided a single approach to attribution, though many others are possible. (See photographic plates: Attribution of 1781 Obverses and Attribution of 1781 Reverses.) Obviously, the lower the condition of the coin, especially those having obscured or worn features, the more difficult the attribution will be. The authors caution that even after making an initial identification using the attribution guide, finalization of a decision should be delayed until a recheck of the coin is made against all of the possible varieties.

Obverse Attribution Guide - Explanation

Position of "S•" to Head: Since positions and distances are relative terms, it is necessary to refer to the actual photographs to make a proper determination. In the attribution guide at this decision point, if the S is close to the head, the variety could be 40, 41, 42, 43 or 46. If the S is more separated from the head, the variety could be 44 or 45.

Relationship of "•" to REX: In distinguishing between the obverses 40, 41, 42, 43, and 46, the presence of the dot following REX next to the lower half of the X indicates obverse 40.

Location of the Upper Ribbon to GEORGIVS: The topmost of the two loose ribbons from the back of George III's head should be evaluated in relationship to the letter E in GEORGIVS. On obverses 41 and 46 the ribbon is close to the E while on 42 and 43 the ribbon is more distant. Since "closer" and "more distant" are relative terms the photographic plate should be consulted.

Location REX "•" to Armor: On the obverse the dot following REX is closer to the armor in obverse 41 and more distant on obverse 46. Since "closer" and "more distant" are relative terms, the photographic plate should be consulted.

Location of Lower Ribbon to GEORGIVS: The lower of the two loose ribbons from the back of George III's head should be evaluated in relationship to the first G in GEORGIVS. On obverse 42 the ribbon is closer while on obverse 43 it is more distant. Since "closer" and "more distant" are relative terms, the photographic plate should be consulted.

Position of GEORGIVS to Armor: The left side of the first G in GEORGIVS is very close to George III's armor on Newman 44, while being more separated on variety 45.

Reverse Attribution Guide – Explanation

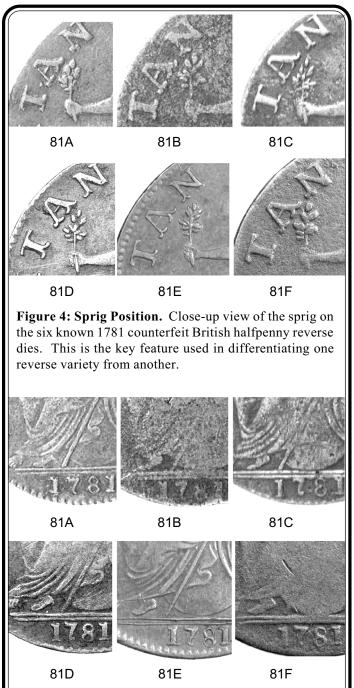


Figure 5: Staff Position. Close-up view of the relationship of the first number 1 of the date to the intersection of Britannia's staff with the exergue line for the six known reverse dies.

Position of Sprig: In Britannia's right hand there is an item that has been referred to variously as a spray, sprig, olive branch, twig, and a variety of other things. For the purposes of the attribution quide it will be called a sprig. When evaluating the top leaf of the sprig in relationship to the legend BRITANNIA, the top leaf lies primarily under the first A in BRITANNIA for reverse 81D, primarily between the first A and N in BRITANNIA for reverses 81A, 81C and 81F, or under the front leg of the first N in BRITANNIA in reverses 81B and 81E. The position of the top leaf of the sprig is probably the single best differentiater of reverse variet-Once attribution is completed on a coin, it would behoove the attributor to make a comparison of all the plated sprigs with the coin being attributed, as a final check. A closeup of the sprigs for the six reverse die varieties is provided in Figure 4.

Position of Staff Over Date:

Another helpful method for differentiating the reverses is the use of the position of Britannia's staff to the first number 1 in the date. Though the presented attribution guide uses this evaluation to differentiate only some of the varieties, close-ups of the position of the staff to the date are provided for all the coins in Figure 5. In evaluating the three reverses 81A, 81C, and 81F, the staff intersects the exergue line to the right of the first number 1 in the date for reverse 81A, while it is over the first number 1 in 81C, and 81F. In differentiating the two reverses 81B from 81E, the staff intersects the exergue line over the first number 1 of the date in reverse 81B, while to the left of the first number 1 of the date in reverse 81E.

Position of NIA to Shield: For reverse 81C the final A in BRITANNIA is further from the shield compared to reverse 81F. Since "nearer" and "further" are relative terms, the photographic plate should be consulted.

DIE COMBINATIONS

Of interest is the limited number of die pairings seen in this series. Only one reverse, Newman 81C, is found with two obverses and there are no shared obverses. This is comparable to the Virginia colonial halfpence coinage where exclusive die pairing with little die sharing is the rule. For the Virginia coinage the explanation is that the quality control in the Royal Mint was extremely tight, and dies were retired early, rather than chance the production of a defective product. Similar arguments cannot be made for the 1781 coinage when we realize that this was purely an imitation coinage. However, the 1781 coinage is remarkably well made and most likely utilized a central hubbing device in the manufacture of the various dies. The central device punch trial piece described earlier supports this concept. The 1781 coinage was produced by a fairly sophisticated operation and very possibly the same engraver's hand produced all the dies. Could the 1781 coinage have had a Royal Mint worker involved? The answer to this question will have to await further research, but the authors speculate that such a connection might exist.

From the seven obverse dies and six reverse dies that are presently known, a total of seven die combinations exist. In addition there is one coin that was made by combining an obverse 43 with an obverse 46. No other die combinations are known to the authors; but since two new varieties have been discovered in the last ten years, it is very possible that other varieties exist. The known die combinations are show in the photographic plate – 1781 Die Interrelationships.

CONCLUSION

The attribution of the seven obverse and six reverse die varieties that constitute the seven known die pairings of the 1781 imitation British halfpence coinage can be difficult. This paper updates the list of known varieties and provides visual attribution guides to facilitate identification of the dies.

^{7.} Moore, Roger A., Anthony, Alan, Newman, Eric P., "Virginia Halfpence Variety Update with Revised Die Interlock Chart," *The Colonial Newsletter*, April 2005, sequential pages 2747-56.

ACKNOWLEDGMENTS

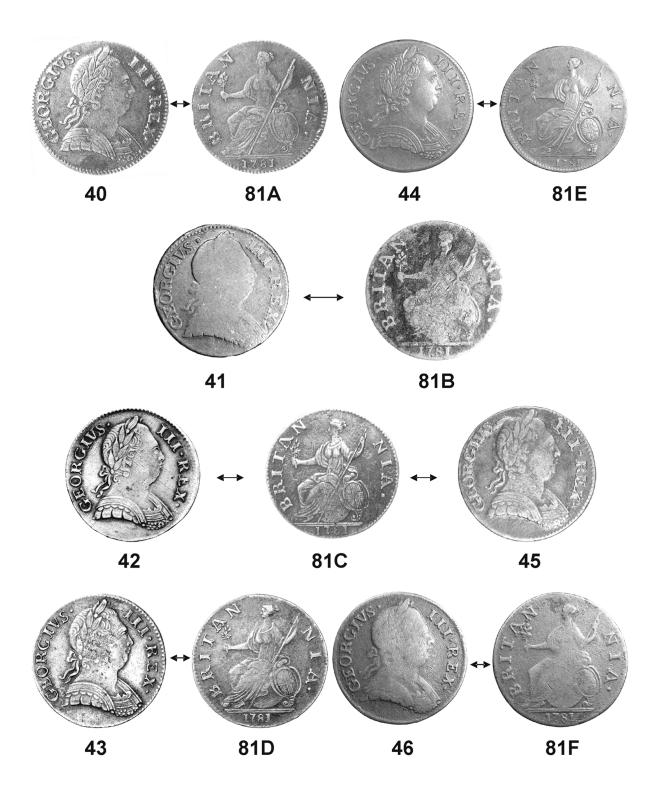
The authors would like to thank the American Numismatic Society, Gordon J. Nichols, Mike K. Ringo, Neil E. Rothschild, and Byron K. Weston for the use of their images in producing the photographic plates and figures for this paper. Specific acknowledgement for each image is provided below. In addition the authors wish to thank the ever vigilant and helpful Gary A. Trudgen for his editorial expertise.

PHOTOGRAPHIC CREDITS

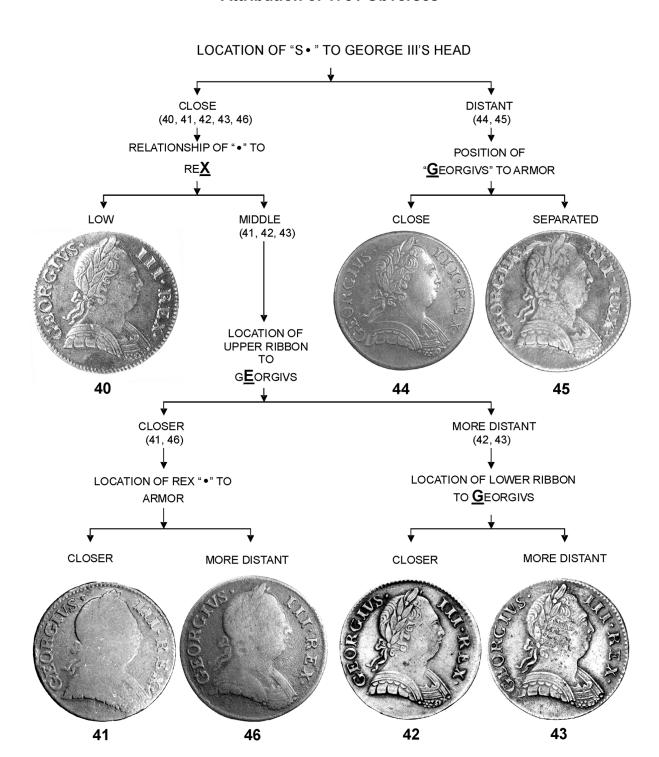
Obverse and Reverse Attribution Guides and Die Interrelationship images:

40 - Neil E. Rothschild	81A - Neil E. Rothschild
41 – Neil E. Rothschild	81B - Neil E. Rothschild
42 – Eric P. Newman (ANS Photo)	81C – Byron K. Weston
43 - Eric P. Newman (ANS Photo)	81D – Roger A. Moore
44 – Mike K. Ringo	81E – Mike K. Ringo
45 – Roger A. Moore	81F – David L. Palmer
46 – David L. Palmer	

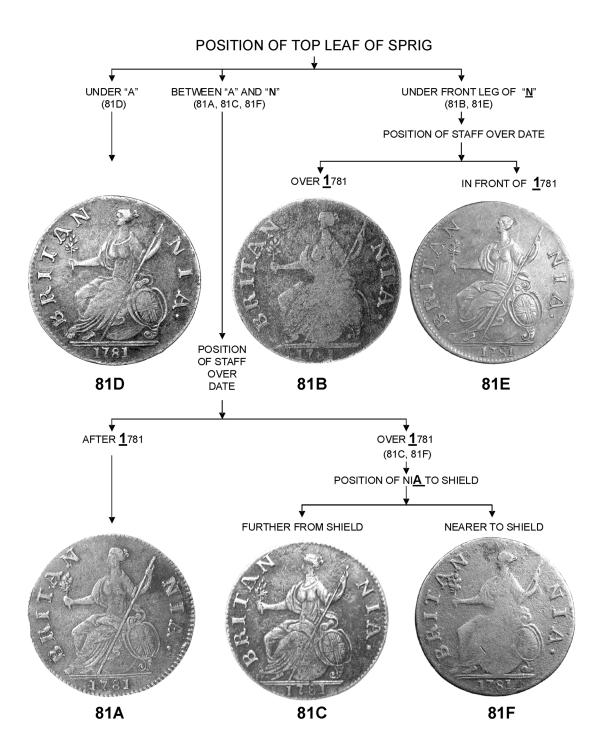
1781 Die Interrelationships



Attribution of 1781 Obverses



Attribution of 1781 Reverses



A Comprehensive Study of the 1785-dated Family of Imitation Halfpence

by Byron K. Weston; Milesburg, PA Roger A. Moore, M.D.; Moorestown, NJ

INTRODUCTION

An in-depth evaluation of the 1785-dated family of imitation halfpence includes a study of new dies and die marriages, as well as an exploration of the history of numismatic research into counterfeit halfpence. The authors believe that an understanding of this history is essential for a full appreciation of the coinage. Previous observations concerning the 1785-dated coinage must be placed within the perspective of the tools and resources that were available to the original researchers. Modern numismatic research has been greatly aided by the availability of instant communications between collectors via the Internet, including the ability to share images, and the occurrence of world-wide auctions conducted online. These new tools have allowed the expansion of numismatic research into areas previously unavailable, and allowed modern numismatists to draw conclusions which would not have otherwise been obvious.

HISTORIC PERSPECTIVE

Numismatists have previously speculated about the possible manufacture and circulation of contemporary counterfeit halfpence in colonial and confederation era America. Sylvester S. Crosby was the first who took notice that some contemporary counterfeit halfpence could be linked by obverse/reverse die sharing with certain issues of Vermont and Connecticut state coinage.¹ Crosby's focus was not the linkage of counterfeit halfpence to the state coinages but rather the elucidation of the die varieties among state coinages that were potentially contemporary counterfeits. Crosby stated,

It is probable, judging from the facts just noted, that many pieces now classed as Connecticut coins, are counterfeits from this mint; and it is not unlikely that the VERMON AUCTORI with reverse BRITANNIA as well as many of the counterfeit halfpence of George III., formed part of the 'hardware' manufactured here.

The only other speculation that Crosby would offer in reference to the state coinages that was specific to contemporary counterfeit halfpence was a brief footnote stating,

Among the coppers here referred to, were probably many of those evidently counterfeit half-pence of George III bearing date from 1772, (perhaps earlier) to 1787 of which I find ten varieties in my own collection, without particular effort to procure such pieces.

Although Crosby obviously recognized the prevalence of counterfeit halfpence as an important part of colonial coinage, his orientation to this coinage seemed to be primarily concerned with how they related to the early state coinages.

1 Crosby, Sylvester S., The Early Coins of America, pp. 190-92, footnote p. 291, (Boston, 1875, repr. 1970).

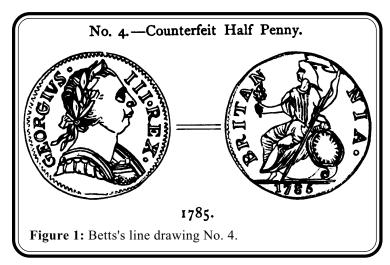
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C. Wyllis Betts would lend his own speculation to Crosby's brief assertions some eleven years later after having examined counterfeit halfpence specimens contained in the Yale College collection.² Betts's focus was on the counterfeit halfpence with an American provenance. He stated.

Among all these counterfeits, is it possible to determine whether any of them are of American production? If so, which of them shall we claim, and where were they made?

Among the dates listed among the counterfeit halfpence in the Yale collection was an imitation halfpenny dated 1785. Betts indicated,

After 1778 the next half pence coined were dated 1781 and 1785, each showing one variety of good execution, closely resembling the counterfeit of 1775. The latter specimen is illustrated in No. 4.



In addition to the die sharing links mentioned by Crosby, Betts would include in his dissertation some observations on the design style similarities, using colorful descriptions, such as "...the lips formed of two narrow lines pursed up under the nose, the long almond-shaped eve...." He also included a discussion about letter punch comparisons among the various counterfeit halfpence in the Yale collection and their having letter punches similar

to those used on some varieties of Connecticut and Vermont coppers.

Noticeably absent from these discussions of design style and letter punches was any further mention of the two halfpennies dated 1781 and 1785. By omission it can be surmised that Betts felt that these two counterfeits did not link with any of the other counterfeits in the Yale College collection, or with any of the Connecticut and Vermont coinages. It would seem that Betts felt that the presence of these two King George III imitations dated 1781 and 1785 within the Yale collection was not significant as an indicator that they had been manufactured in America.

Meaningful research on contemporary counterfeit halfpence would languish for 78 years after Betts's monograph until 1964 when Robert A. Vlack produced photographic plates of counterfeit halfpence thought to have originated in America. These plates were revised ten years later to include additional specimens and varieties with the dates of 1775, 1784, and 1786.³ Absent from these plates were images of imitation halfpence dated 1781 or 1785. Vlack had obviously been aware of these dates, having reprinted and distributed Betts's monograph with George Fuld early in 1960.

² Betts, C. Wyllis, "Counterfeit Half Pence Current in the American Colonies and their issue from the Mints of Connecticut and Vermont." 1886.

³ Vlack, Robert A., "American 'Tory' Halfpence," 1964; "Early English Counterfeit Halfpence Stuck in America," 1974.

Not until June 1981 when *The Colonial Newsletter*, CNL-60, reprinted Betts's monograph as an "Iterative Research Working Document" titled "The Annotated Betts" would the 1781 and 1785 dated coins be reintroduced to collectors. Of note was the annotation within the reprint placed beside Betts's line drawing of his No. 4 figure, which stated,

Unknown today? Perhaps same die as Vlack Obverse 15 which is muled with 1787 IMMUNE COLUMBIA.

Four years later, in the June 1985 issue of *CNL* (CNL-70, p. 909, TN-101), "Betts 4 Reappears" was published with an image of an example of this variety that Mike Ringo and Gary Trudgen had found while looking through a group of unattributed counterfeit halfpence.



Figure 2: The rediscovery specimen, Newman 51-85B. [Shown approximately 1.5X actual size.] *Courtesy of Byron K. Weston.*

The publishing of this image of an actual coin that had previously only been known by a line drawing led to a few brief responses from patrons that were printed in the next *CNL* issue (TN -104, pp. 912-14). These responses include commentary on both TN-101 as well as the Betts reprint. Eric P. Newman responded that he had seen the Yale 1785 specimen mentioned by Betts (No. 4) in spite of the coin not having been located during two attempts to find it around 1975. Newman also re-

vealed that he owned a 1785-dated specimen with the same Betts 4 obverse but a different reverse.

Gary Trudgen revealed that Mike Ringo now owned the "rediscovery specimen" in addition to a second specimen with the same Betts 4 obverse and a different reverse. He also suggested that some of the Connecticut die varieties he had examined in the ANS collection seemed to share several of the same letter punches used to produce the Betts 4 specimen.

A final response came from patron Michael Oppenheim concerning two 1781-dated imitations that he had examined from different dies but with a number of stylistic similarities to the 1785-dated imitation. He also cited the appearance of another 1781-dated coin that had been offered in the Pine Tree Auction Co. sale of October 18, 1975, lot 592. The cataloguer's description suggested an origin for the specimen of Westerly, RI, thereby linking it with the 1784-dated variety on the revised 1974 Vlack plates.

What can be gleaned from these responses is that the 1781 and 1785-dated specimens that Betts had examined in the Yale collection were not unique and that at least four specimens of each existed, with a minimum of at least two varieties of each date. Although apparently dismissed by Betts and Vlack, there was now some speculation of an American provenance for these two dates.

Points made in these letters to the editor in response to the annotated *CNL* reprint of Betts's dissertation, as well as the subsequent technical note, would again be addressed by Eric P. Newman who would also present a new theory on the origins of the 1781 and 1785-dated coins.⁴ Newman cited four sources of British documentation as the basis of his theory and presented five varieties for each of these dates.

For the 1781-dated imitations Newman pointed out that four different varieties had been previously observed by Batty in England.⁵ Although he did not directly address Oppenheim's previously stated concern of the misattribution of imitations dated 1781 and 1784, Newman did include a brief discussion of the 1784-dated coins that had previously been found and reported in England by both Batty and Hammond.⁶ In spite of uncovering evidence for the possible circulation of both the 1781 and 1784 dated coins in England, Newman reaffirmed a previous assertion of an origin in the locale of North Swansea, Massachusetts⁷ for the 1784-dated imitation, rather than the Westerly, R.I. provenance that had been incorrectly stated in the auction description for a 1781-dated imitation. Newman would nonetheless conclude that the 1781-dated imitations circulated in both America and England.

Newman did not find any documentation of the 1785 imitations within the four referenced British sources which, in part, led to his theory that they had been manufactured in England specifically for export to America. In his assertion for a British provenance Newman stated, "the die work on the 1785 pieces seems far superior to American abilities of that period." Newman also eliminates the speculation in the TN-104 article for a connection of the 1785 date to some varieties of Connecticut coppers. The basis for his view was reached by comparing letter punches and concluding that in each situation the punches differed. Further punch evidence presented to Newman by Mike Ringo which linked the letter punches on the 1785 imitations with an Irish obverse brockage confirmed that these pieces "were cut in the British Isles and not in America." However, the crux of the theory that 1785-dated imitations were made specifically for export to America still relied on the apparent lack of documentation of the presence of 1785-dated halfpence having circulated in England.

⁴ Newman, Eric P., "Were Counterfeit Halfpence Dated 1785 Made Specifically For American Use?," *American Numismatic Society Museum Notes* 33, 1988, pp. 205-23.

⁵ Batty, D. T., Batty's Catalogue of the Copper Coinage of Great Britain, Ireland, British Isles and Colonies, 4 vols., Manchester, 1868-98.

⁶ Hammond, L. F., "English Copper Coins and Counterfeits," *Proceedings of the Croydon Natural History and Scientific Society* 10, Croydon, 1929, pp. 84-109.

⁷ Newman, Eric P., "American Circulation of English and Bungtown Halfpence," *Studies on Money in Early America*, 1976, pp. 134-72.

NEW DIES AND DIE MARRIAGES

Newman 52-85D

A new 1785 reverse die variety, unrecorded by Newman, was discovered by William T. Anton, Jr. and plated as his No. 25.8 This new reverse combined with the Newman 52 obverse was labeled N.52-85D by Anton. Anton had acquired this specimen while in England a number of years earlier and noted that at least two other 1785-dated imitations from unspecified dies were still in British holdings. Subsequent discoveries of additional specimens, one sold on eBay by a British seller, and another already residing in an American collection, have brought the count for this variety to three.



Figure 3: Newman 52-85D. [Shown approximately 1.5X actual size.] *Courtesy of William T. Anton, Jr.*

Newman 53-85B

Adding to the growing evidence that the 1785 coinage circulated both in England and America was the discovery of another new variety by British collector Richard Colliass. The announcement of this new discovery and its possible significance was discussed in *CNL*, TN-184. This new specimen was initially thought to be a die marriage of Newman's 52 obverse with an early die state of the 85B reverse. This specimen was examined by Newman, who affirmed that it was a new pairing. Subsequent observations made by Mike Ringo after the discovery of a new obverse, Newman 53, with very strong similarities to the known obverse 52, would confirm that this specimen was instead a marriage of the previously unknown obverse 53 die to the 85B reverse. Overlay comparisons done by Gary Trudgen confirmed this as the new obverse 53 die, showing it was not obverse 52 as was previously thought. Although its discovery was originally published in 2000, this coin continues to remain the only specimen currently known of this die combination.



Figure 4: Newman 53-85B, the Colliass specimen. [Shown approximately 1.5X actual size.] *Courtesy of Byron K. Weston.*

Image Processing Techniques Used to Analyze the Obverse Dies



Figure 5: Obverse 53 of the discovery specimen compared to obverse 52 using a grid overlay. The stop after GEORGIVS is used as the grid reference point for both coins. Importantly, both coins were photographed using the same camera setup in order to eliminate possible scaling differnces of the images. *Images courtesy of Roger A. Moore for obverse 52 and David L. Palmer for obverse 53*.



Figure 6: Obverse image of Newman 53-85B (60% opacity) overlaid on the image of obverse 53 (100% opacity) from the discovery specimen showing an exact match. *Image courtesy of Gary A. Trudgen*.

Newman 51-85A

A third new variety recognized as the marriage of obverse 51 with the 85A reverse was described by Byron K. Weston and Clement V. Schettino, and presented in *CNL*, TN-193. This was a new die combination that had not previously been known to Newman, and was discussed on the colonial-coins Yahoo eGroup while still being offered on eBay by the British seller. At least one other example of this new die combination, also offered by a different British seller on eBay, has been discovered since its first appearance.



Figure 7: Newman 51-85A. [Shown approximately 1.5X actual size.] *Courtesy of Roger A. Moore.*

Newman 51-85D

The fourth new variety, also discovered on eBay, was an unattributed coin being offered by a United States dealer in May 2006. Prior to its sale the authors tentatively identified the coin as a new marriage of obverse 51 and reverse 85D. It is logical that this coin would exist since this completes the marriage of obverse 51 with each of the known reverses.



Figure 8: Newman 51-85D. [Shown approximately 1.5X actual size.] *Courtesy of Jeff Rock.*

Newman 53-85D

The fifth and final new variety that we can currently report was discovered by its buyer in a group lot of six halfpence described as "detecting finds" that sold on eBay by a British seller in early July 2006. This variety has the distinction of exhibiting the new fourth obverse die 53 combined with the new fourth reverse die 85D, both of which were unknown to Newman in 1988. It was the discovery of a new obverse die that led to the re-evaluation of the previous mentioned 53-85B die marriage.



Figure 9: Newman 53-85D. [Shown approximately 1.5X actual size.] *Courtesy of David Palmer*.

ADDITIONAL SPECIMENS

Cobwright also discussed two varieties of 1785-dated imitation halfpence in his classic reference on British evasion halfpence. However, since his monograph had no photo-plates it is unknown what, if any, correlation these two varieties may have with those previously described and plated by Newman. Cobwright's monograph was published subsequent to Newman's monograph, and is relevant in that it also mentions two different 1785-dated varieties residing in England, as Anton did in his book.

In the months following the publication of TN-193, in addition to the new variety which recently came out of England, a number of other 1785-dated imitation halfpence specimens have turned up. These specimens were sold by British sellers on eBay and were die marriages that were known and described by Newman in his 1988 monograph. Two examples are shown below:



Figure 10: Newman 51-85B. [Shown approximately 1.5X actual size.] *Courtesy of Roger A. Moore.*



Figure 11: Newman 51-85C. [Shown approximately 1.5X actual size.] *Courtesy of Chris Stevens.*

⁹ Cobwright, Mullhulland Ignatious, A journey through the Monkalokian rain forests in search of the Spiney Fubaduck, Beeston, 1993.

CONCLUSION

It can now be surmised that with the increased number of specimens made available to collectors via eBay, and the majority of them coming from sellers in England, that 1785-dated imitations circulated in both America and England. Further, it may be concluded that the 1785-dated imitation halfpence were not made in Britain exclusively for export to America as once believed.

ACKNOWLEDGMENTS

The authors would like to express sincere thanks to the members of the nonregalresearch Yahoo eGroup and other collectors who have shared images from their collections. This allowed us to document all the varieties and specimens currently known to us, as well as produce the photographic plates included with this article. We would also like to acknowledge the quiet but essential editorial assistance provided by the very able Gary Trudgen, as well as his expertise in solving the dilemma over whether or not the 53 obverse was new.

APPENDIX

Attribution Guides and Plates

The ability to distinguish one variety of 1785 from another takes time and study. Many of the differences between these varieties are very subtle. The difficulty of attributing these coins is emphasized by the need for photographic overlays in order to confirm that the new 1785 obverse 53 was different from previously described obverses. The only study evaluating the varieties of the 1785 imitation British halfpence (see footnote 4) provided written descriptions of each variety. However, most attributors relied heavily on the photographic plates, which were also provided. The present authors emphasize the value of photographic plates for making positive variety identifications. In addition attribution can be aided by the use of a simple guide. Certain characteristics of each coin differ from variety to variety and can be used to help narrow down the attribution to a specific die type. Many different guides could be developed based on the placement of a greater emphasis on one characteristic over another. The authors have provided only one approach to attribution, though many others are possible. Obviously, the lower the condition of the coin, especially those having obscured or worn features, the more difficult the attribution will be. The authors caution that even after making an initial identification using the attribution guide, finalization of the attribution should be delayed until a recheck of the coin is made against all of the possible varieties.

Obverse Attribution Guide (Also see p. 3101)

Position of Top Hair Ribbon to GEORGIVS: The topmost of the two loose ribbons at the back of King George III's head should be evaluated in relationship to the letter E in GEORGIVS. This is perhaps the most helpful characteristic in making an initial determination of the variety. For obverses 50 and 51 the tip of the top ribbon points to the middle of the base of the E in GEORGIVS. For obverse 53 the ribbon ends just under the upright of the E and for obverse 52, it lies slightly to the left of the upright of the E. Distinguishing obverse 52 and 53 is very problematic with the only other significant difference being a slight variation in the spacing of the legends on the left side of the obverse. Since the positions of the top ribbon in relationship to the E in GEORGIVS is key to differentiating the varieties, a close-up of the ribbons is provided in Figure 12.



Figure 12: Top hair ribbon tip position with respect to the E in GEORGIVS for each of the four obverse dies.

Position of Third "I" in III: Since position is a relative term, it is necessary to refer to the actual photographs to make a proper determination. For obverse 50 the bottom of the third I in III is located just above the tip of King George III's nose, which helps to differentiate it from obverse 51 where the third I in III is located over the tip of the nose.

Reverse Attribution Guide (Also see p. 3102)

Position of the Sprig Tip: In Britannia's right hand there is an item that has been referred to variably as a spray, sprig, olive branch, twig, and a variety of other items. For the purposes of this attribution guide it will be called a sprig. When evaluating the top leaf of the sprig in relationship to BRITANNIA in the legend, the top leaf lies primarily under the first N in BRITANNIA for reverses 85A, 85B, and 85D. For reverse 85C the tip of the sprig lies above the first N in BRITANNIA. Though further use of the sprig's position is not utilized in this guide for differentiating 85A, 85B, and 85C, the authors would like to emphasize that the exact position of the sprig is probably the single best differentiator of reverse varieties. Once attribution is completed on a coin, it would behoove the attributor to make a comparison of all the plated sprigs with the coin being attributed, as a final check. A close-up of the sprigs for the four reverse varieties is provided in Figure 13, along with the position of the arm in relationship to the legend.

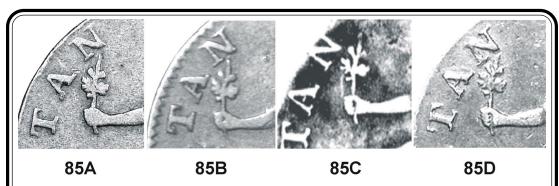
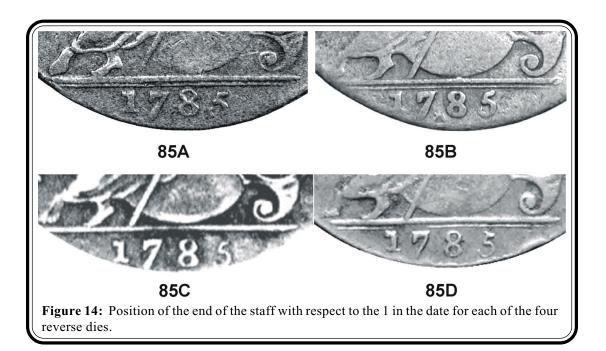


Figure 13: The relationship of the top left of the sprig to the first N in the legend for each of the four reverse dies. Also shown is position of Britannia's right hand with respect to the legend.

Arm Position: Britannia's right arm extends out from her torso in a nearly perpendicular manner. An evaluation of the position of the right arm and hand in relationship to the legend can be helpful in attribution. In reverse 85B the arm lies in the middle of the upright of the T in BRITANNIA, while the arm's location is to the right of the upright of T in 85A and 85D. Though not used in this attribution guide, the arm points at the first A in BRITANNIA for reverse 85C. A close-up of the arm position in relationship to the legend for the four reverse varieties is provided in Figure 13 along with the relationship of the sprig to the legend.

Position of Staff Over Date: Another helpful method for differentiating the reverse dies is the position of Britannia's staff with respect to the number 1 in the date. Though the provided attribution guide uses this evaluation to differentiate only some of the varieties, close-ups of the position of the staff to the date is provided for all the four reverse dies in Figure 14. In differentiating reverses 85A and 85D, the staff intersects the exergue line to the right of the number 1 in the date for reverse 85D, while it is directly over the number 1 for reverse 85A.



PHOTOGRAPH ACKNOWLEDGMENTS - APPENDIX

Obverses:

50 – 50-85A With permission from the photograph by Mike Ringo.

51 – 51-85B With permission from the private collection of Roger Moore.

52 – 52-85D With permission from the private collection of Roger Moore.

53 – 53-85B With permission from the private collection of Byron Weston.

Reverses:

85A – 51-85A With permission from the private collection of Roger Moore..

85B – 51-85B With permission from the private collection of Roger Moore.

85C - With permission from the photograph by Mike Ringo.

85D – 52-85D With permission from the private collection of Roger Moore.

Sprig Close-Ups:

85A – With permission from the private collection of Roger Moore.

85B – With permission form the private collection of Clem Schettino.

85C - With permission from the photograph by Mike Ringo.

85D - With permission form the private collection of Clem Schettino.

Date Close-Ups:

85A – With permission from the private collection of Roger Moore.

85B – With permission from the photograph by Mike Ringo.

85C - With permission from the photograph by Mike Ringo.

85D – With permission from the private collection of Roger Moore.

Ribbon Close-Ups:

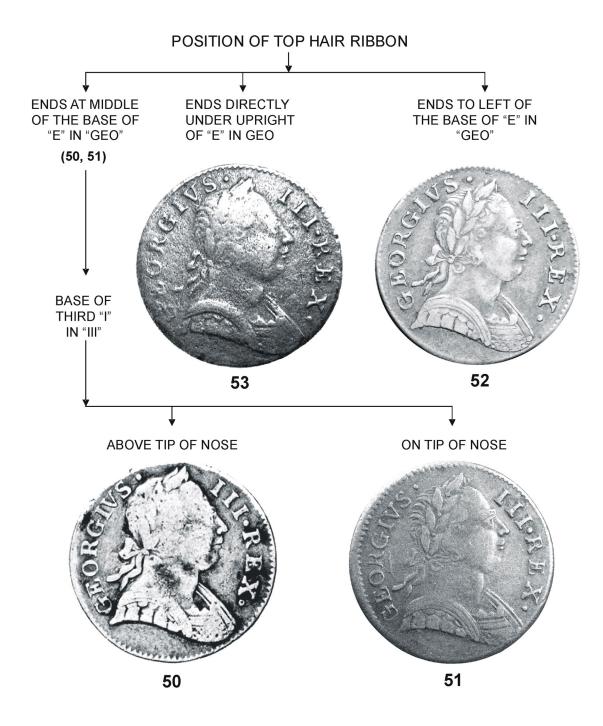
85A – With permission from the photograph by Mike Ringo.

85B – With permission from the private collection of Roger Moore.

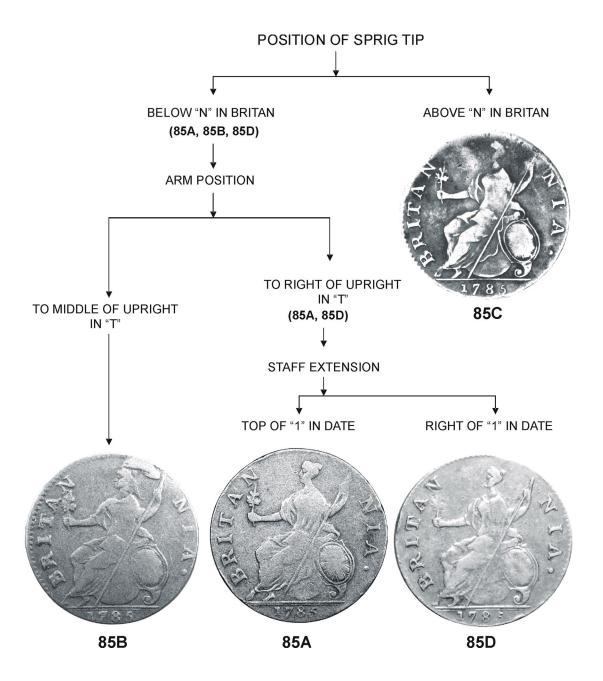
85C – With permission from the private collection of Roger Moore.

85D – With permission from the private collection of David Palmer.

ATTRIBUTION GUIDE FOR THE 1785 OBVERSES



ATTRIBUTION GUIDE FOR THE 1785 REVERSES



DIE RELATIONSHIPS OF THE 1785 IMITATION HALFPENCE FAMILY

